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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/609,243

06/27/2003

Antoni Gil

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06/16/2004

HEWLETT-PACKARD COMPANY

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EXAMINER

DO, AN H

ART UNIT

PAPER NUMBER

2853

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/609,243	Applicant(s) GIL ET AL.	
	Examiner An H. Do	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13 and 18-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,11-13,18,23-25 and 27-29 is/are rejected.
- 7) ☒ Claim(s) 4-10,19-22,26 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/27/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Response to Restriction/Election Requirement filed on 03 May 2004 has been acknowledged.

Election/Restrictions

1. Applicant's election with traverse of Species A, claims 1, 3-13, 18-22 and 30 in Paper filed on 03 May 2004 is acknowledged. The traversal is on the ground(s) that the it would not be a serious burden on the Examiner to search claims 23-29 related to Species B since claims 1, 3-13, 18-22 and 30 related to Species A have already been performed. This argument is found persuasive and the Election/Restriction Requirement is withdrawn. Therefore, claims 1, 3-13 and 18-30 will be treated in this Office Action as follows:

Claim Objections

2. Claims 4, 18 and 19 are objected to because of the following informalities:

In claims 4 and 19:

-Insert --printing zone-- after "horizontal" in line 2 to support the antecedent basis.

In claim 18:

-Insert --located downstream of the horizontal printing zone-- after "a deflector" in line 3 to support the antecedent basis.

Appropriate correction is required.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

4.

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 3, 11-13 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2 and 10-13 of U.S. Patent No. 6,648,465. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in both instant application and patent claims claiming the same subject matter of a printing apparatus and a heated media deflector as shown in the following Claims Comparison Table:

U.S. Application No. 10/609,243 CLAIMS

1. A printing apparatus configured to print on a media and minimize distortion of the media during printing, the apparatus comprising:

a printing zone for printing in a substantially horizontal orientation; and

a heated media deflector configured to guide and dry the media, the heated media deflector located downstream of the horizontal printing zone.

3. The apparatus of claim 1, wherein the heated media deflector comprises:

a plastic support portion; and

a sheet metal portion attached to the plastic support portion, the sheet metal portion configured to contact and guide the media.

11. A method of reducing distortion in media during an inkjet printing process when the media travels from a substantially horizontal printing plane to a substantially vertical feeding path, the method comprising:

printing an image on the media in the substantially horizontal printing plane;

feeding the media in the substantially vertical feeding path after printing the image; and

heating the media, by passing the media over a heated media deflector in a transition area between the substantially horizontal printing plane and the substantially vertical feeding path.

12. The method of claim 11, wherein printing comprises printing water-based ink from an inkjet printhead and providing a paper-based web media.

13. The method of claim 12, wherein the heating the media comprises producing an amount of heat to evaporate excess water from the water-based ink.

18. A heated media deflector for an inkjet printer comprising:

a deflector that includes
a plastic support portion;
a sheet metal portion attached to the plastic portion;
and
a heating resistor attached to a bottom face of the sheet metal.

U.S. Patent No. 6,648,465 CLAIMS

1. A printing apparatus comprising:

a printing zone for printing in a substantially horizontal orientation;

a heated media deflector configured to guide the media, the heated media deflector located downstream of horizontal printing zone; and

a substantially vertical feeding path downstream of the heated media deflector wherein the heated media deflector is a transition feeding area between the horizontal printing zone and the vertical path.

2. The apparatus of claim 1, wherein the heated media deflector comprises:

a plastic support portion; and

a sheet metal portion attached to the plastic support portion, the sheet metal portion configured to contact and guide the media.

10. A method of reducing distortion in media during an inkjet printing process when the media travels from a substantially horizontal printing plane to a substantially vertical feeding path, the method comprising:

printing an image on the media in the substantially horizontal printing plane;

feeding the media in the substantially vertical feeding path after printing the image; and

heating the media by passing it over a heated media deflector in a transition area between the substantially horizontal printing plane and the substantially vertical feeding path.

11. The method of claim 10, wherein the step of printing comprises printing water-based ink from an inkjet printhead and providing a paper-based web media.

12. The method of claim 11, wherein the step of heating the media comprises producing an amount of heat to evaporate excess water from the water-based ink.

13. A heated media deflector for an inkjet printer comprising:

a plastic support portion;
a sheet metal portion attached to the plastic portion;

a heating resistor attached to a bottom face of the sheet metal; and
wherein the sheet metal portion slopes downwards at about 10.degree. below the horizontal.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 3 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Peter (US 6,231,176 B1).

Regarding claim 1, Peter discloses in Figures 1 and 2 a printing apparatus configured to print on a media (16) and minimize distortion of the media during printing, the apparatus comprising: a printing zone (38) for printing in a substantially horizontal orientation (Figure 1); and a heated media deflector (80, arc portion 88 and flat member 90) configured to guide (over flat heating member 90) and dry the media (16), the heated media deflector located downstream (under the printing zone 38) of the horizontal printing zone (Figure 1).

Regarding claim 3, Peter further discloses the heated media deflector (80, 88) comprises a plastic portion (leaf spring member 82 made of fiberglass, see column 5, lines 27-28); and a sheet metal portion (flat heating member 90) configured attached (at two ends 84, 86) to the plastic support portion (82), the sheet metal portion (90) configured to contact and guide the media (16).

Regarding claim 18, Peter discloses in Figures 1 and 2 a heated media deflector

(80, arc portion 88 and flat member 90) for an inkjet printer comprising: a plastic support portion (leaf spring member 82 made of fiberglass, see column 5, lines 27-28); a sheet metal portion (flat heating member 90) attached (at two ends 84, 86) to the plastic support portion (82); and a heating resistor (column 5, lines 38-47) specifically attached to a bottom face of the sheet metal (conductive heating strips made integrally).

8. Claims 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Codos (US 6,726,317).

Regarding claim 11, Codos discloses in Figure 3 a method of reducing distortion in media during an inkjet printing process when the media travels from a substantially horizontal printing plane (the horizontal plane under the printheads 640, 641) to a substantially vertical feeding path (the downstream path where the web 605 is guided from 660 to section 666), the method comprising:

- printing (640, 641) an image on the media (605) in the substantially horizontal printing plane (the horizontal plane under the printheads 640, 641);

- feeding the media in the substantially vertical feeding path (the downstream path where the web 605 is guided from 660 to section 666) after printing the image; and

- heating (660) the media (605), by passing the media (605) over a heated media deflector (660-664) in a transition area between the substantially horizontal printing plane (the horizontal plane under the printheads 640, 641) and the substantially vertical feeding path (the downstream path where the web 605 is guided from 660 to section 666).

Regarding claim 12, wherein printing comprises printing water-based ink (column 4, lines 53-59) from an inkjet printhead (640, 641) and providing a paper-based web media (605).

Regarding claim 13, wherein the heating the media comprises producing an amount of heat to evaporate excess water from the water-based ink (column 19, lines 42-46).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

~ (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peter (US 6,231,176 B1) in view of Mizoguchi et al (US 6,179,418).

Peter does not disclose the following claimed features:

Regarding claim 23, a system to detect environmental conditions and to set a heating temperature of the media deflector based on the detected environmental conditions and/or the determined print mode parameters.

Regarding claim 24, wherein the environmental conditions comprise at least one of the ambient temperature and the ambient humidity.

Regarding claim 25, wherein the print mode parameters comprise at least one of plot width, media advance rate, printhead scanning rate, and ink fired per scan.

Mizoguchi et al teaches the followings:

Regarding claim 23, a system to detect environmental conditions (24) and to set a heating temperature (5, 6) of the media deflector based on the detected environmental conditions and/or the determined print mode parameters (Figure 4) for the purpose of properly controlling and printing data on the recording medium (column 5, lines 44-46).

Regarding claim 24, wherein the environmental conditions comprise at least one of the ambient temperature (24) and the ambient humidity (25) for the purpose of properly controlling and printing data on the recording medium (column 5, lines 44-46).

Regarding claim 25, wherein the print mode parameters comprise at least one of plot width, media advance rate, printhead scanning rate, and ink fired per scan (column 3, lines 6-9) for the purpose of properly controlling and printing data on the recording medium (column 5, lines 44-46).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a system to detect environmental conditions and to set a heating temperature of the media deflector based on the detected environmental conditions and/or the determined print mode parameters, the environmental conditions comprise at least one of the ambient temperature and the ambient humidity, and the print mode parameters comprise at least one of plot width, media advance rate, printhead scanning rate, and ink fired per scan, as taught by Mizoguchi et al into Peter, for the purpose of properly controlling and printing data on the recording medium (column 5, lines 44-46).

11. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Codos (US 6,726,317) in view of Mizoguchi et al (US 6,179,418).

Codos does not disclose the following claimed features:

Regarding claim 27, a system to detect environmental conditions and to set a heating temperature of the media deflector based on the detected environmental conditions and/or the determined print mode parameters.

Regarding claim 28, wherein the environmental conditions comprise at least one of the ambient temperature and the ambient humidity.

Regarding claim 29, wherein the print mode parameters comprise at least one of plot width, media advance rate, printhead scanning rate, and ink fired per scan.

Mizoguchi et al teaches the followings:

Regarding claim 27, a system to detect environmental conditions (24) and to set a heating temperature (5, 6) of the media deflector based on the detected environmental conditions and/or the determined print mode parameters (Figure 4) for the purpose of properly controlling and printing data on the recording medium (column 5, lines 44-46).

Regarding claim 28, wherein the environmental conditions comprise at least one of the ambient temperature (24) and the ambient humidity (25) for the purpose of properly controlling and printing data on the recording medium (column 5, lines 44-46).

Regarding claim 29, wherein the print mode parameters comprise at least one of plot width, media advance rate, printhead scanning rate, and ink fired per scan (column 3, lines 6-9) for the purpose of properly controlling and printing data on the recording

medium (column 5, lines 44-46).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a system to detect environmental conditions and to set a heating temperature of the media deflector based on the detected environmental conditions and/or the determined print mode parameters, the environmental conditions comprise at least one of the ambient temperature and the ambient humidity, and the print mode parameters comprise at least one of plot width, media advance rate, printhead scanning rate, and ink fired per scan, as taught by Mizoguchi et al into Codos, for the purpose of properly controlling and printing data on the recording medium (column 5, lines 44-46).

Allowable Subject Matter

12. Claims 4-10, 19-22, 26 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 4-10 and 19-22, it is the combined limitations of "wherein the sheet metal portion slopes downwards at about 10° below the horizontal printing zone. " This invention solves the problem of providing a smooth transition feeding area between the substantially horizontal printing plane and a substantially vertical feeding path. It is this combination, which is not found, taught or suggested in the prior arts.

Regarding claims 26 and 30, it is the combined limitations of "wherein a heating temperature is approximately 50° C to 70° C. " This invention solves the problem of preventing a hazard from anyone touching the heat media deflector. It is this combination, which is not found, taught or suggested in the prior arts.

Contact Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An H. Do whose telephone number is 571-272-2143. The examiner can normally be reached on Monday-Friday Flexible.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AD
June 14, 2004

